



**USAID**  
FROM THE AMERICAN PEOPLE

**PHILIPPINES**

## SUCCESS STORY

### Reducing Emissions to Increase Profits of Jeepney and Bus Drivers in Metro Manila, Philippines



Excessive vehicle emissions have resulted to an alarming level of air pollution that contributed in making Metro Manila as one of the most polluted cities in the world. Studies showed that 70% of air pollution in Metro Manila comes from vehicle emissions due to incomplete combustion of improperly maintained public utility vehicles notably, the jeepneys and buses.

In September 2002, through a grant from USAID, the Infinite Progression Corporation (IPC) introduced the “six step approach to control vehicle emissions in Metro Manila”. This approach aims to address air pollution problems arising from excessive vehicle emissions. To demonstrate this, IPFI conducted pilot studies for both the jeepneys and buses on how preventive maintenance approach work. The result was amazing. “We will do it to all our buses whether it is old or brand new!” exclaimed Mr. Roberto Torres, owner of the RRCG bus company plying Metro Manila after a 20 year old

bus of his fleet underwent a preventive maintenance works on the engine. The preventive maintenance work showed that the fuel consumption was reduced by 52% from 2.06 per liter to 3.14 km. per liter and smoke opacity K value of 6.7 down to a measly 0.05 against the emission standard of 2.5.

In a similar demonstration, IPFI proved that preventive maintenance can reduce the emission standard of jeepneys and make them environmentally compliant. A 12-year old jeepney with an emission test result of 72% opacity failed the test conducted by an emission testing center. After undergoing a series of parts replacements and installation, injection pump calibration and major engine overhaul, the emission test result registered an opacity of 13.8% which is well within the standard set by the Clean Air Act.

To date, at least 1,300 jeepney drivers/operators in Metro Manila were trained by IPFI on preventive maintenance. A post training survey revealed that 96% of jeepney drivers are now practicing preventive maintenance which significantly reduced the emission from their jeepneys while increasing their monthly income to an average of P5,000.

The success of the preventive maintenance work inspired Mr. Torres to put a printed advertisement at the back of his buses to encourage more bus operators and drivers to practice preventive maintenance. Mr. Torres believes that through proper training on preventive maintenance, jeepney and bus drivers/operators will be transformed from gross polluters to environment promoters.

Barangay Mandulan now looks forward to a more peaceful and progressive future with the help of their own BRECDA and the Municipal BRECDA Federation, established through the AMORE Program.